The Quick Answer™
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MARBLE PUBLICATIONS

Tracking File Folders in the Law Office

TOM MARCELLUS

In a fast-paced document-centric paper mill like a large law firm, you need all the help you can get. Here's a litigation folder-tracking system even non-Q&Aers can use to quickly find out what's where.

WORDPERFECT and Q&A are popular with the legal profession. In many law offices, WordPerfect generates the documents, and Q&A tracks client, billing, and litigation-related information.

When the law firm I recently did some work for takes on a new case, they assign a Case Number, then create a new subdirectory under WordPerfect using the same case number. All WordPerfect documents relating to the case are stored in this subdirectory, making them easy to manage and find (see **Figure 1**).

But not only do law firms have electronic files to keep tabs on, they have the physical file folders to track, too. (Nothing generates paperwork like litigation.) This particular firm usually has about three hundred cases in process, and folder control is crucial. Dozens of file folders can be generated for just one case during the course of a lawsuit, and the attorneys and staff need a fast way to find out which documents are in what folders.

They track file folders with Q&A. When a new folder is created, a record is added to the FOLDERS database showing the Case Number, the three lines that appear on the physical folder label, and a key word that indicates where the folder can be found.

Most people at the firm aren't Q&A literate (shame on them) but they all know WordPerfect. One of the paralegals who manages the FOLDERS database decided she was going to make everyone's life easier by creating a no-brainer way for anyone to find file folders. This was her objective:

> Each WordPerfect Case Number subdirectory will include a document named *FILES* that lists the existing file folders for that Case Number. A quick look at the *FILES* document for any case will help the user determine which folder is needed and where it's stored.

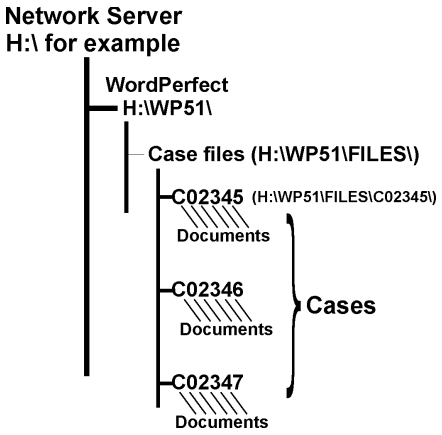

Figure 1. The H:\WP51\FILES\ directory has a subdirectory for each Case Number containing all the document files relating to the case.

Although the paralegal got the system going, it was taking an enormous amount of time to print each of the FOLDERS reports to disk—some 300 of them, one for each open case—then copy the files over to the corresponding WordPerfect subdirectories.

She wanted to automate the entire process, including copying the report files to the appropriate WordPerfect subdirectories. This way, she could "flick a switch" to update every FILES document in all 300 or so WordPerfect subdirectories.

Continues on page 3

My Eyes, My Eyes!

TOM MARCELLUS, EDITOR

NO, you did not suddenly go colorblind. Check your socks. Yep. Same two colors as usual. But to keep *The Quick Answer* coming to you at the same subscription price, we've had to make a few changes—including switching to one-color printing. We'll continue to pack just as many Q&A tips, tricks, and techniques as we can into each issue, and maintain the high level of quality to which you're accustomed.

Q&A's *Remove Duplicate Records* command can be injurious to your data. You can't always specify—or predict—which records in a group of dupes you want Q&A to toss out. (Q&A keeps the first one it finds, and chucks the rest.) The *Duplicate Records to ASCII* option provides a safety net, but shows only the nixed records—not the ones left behind. That's why I'm impressed with **Bill Halpern's** clever approach to previewing *potential* duplicate records.

Can you tell how out-of-date the information in a database is? A database's DOS date stamp could be as recent as last month, while the bulk of its records might be ancient. Can you afford to mail to a list of year-old addresses? **Alec Mulvey** shows you how he keeps tabs on time-sensitive information like this.

Recently, we heard from a large law firm that uses Q&A to track litigation file folders. Everyone at this firm knows WordPerfect, but not Q&A, so one of the paralegals wanted Q&A to generate daily file folder reports for each case, and place them in the appropriate WordPerfect Case Number subdirectories. This way, anyone working in WordPerfect can quickly view a list of existing file folders for any case. But how do you automate running some 300 reports (one report per open case), and have Q&A move each to its corresponding WordPerfect subdirectory? I'll show you how. **QA**

The Quick Answer™

The Independent Guide to Q&A® Expertise

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Quick Tip

When a Text String Includes a Date

WIN DOS

You might need to combine a text message with a date value to autodate a reminder note or place a date notation in a record. If you have "Paid in Full" in field #102, and want it to appear in field #103 preceded by today's date, you can string the two values together with a program like this:

```
#103 = @Str(@Date) +" "+ #102
```

However, you'll get this oddball result:

1997/01/07 Paid in Full

To get a more familiar date format, change your program to this:

```
#103=@Mid(@Date,6,5)+"/"+@Mid(@Date,3,2)+" "+#102
```

and you'll get this:

01/07/97 Paid in Full.

Gordon Meigs, PCTA, Newtown, PA

Tracking File Folders . . .

Continued from page 1

A supplementary database needed

The FOLDERS database contained all the data needed for the FILES documents. Here are the pertinent fields:

```
Case No:

         -Folder Label-
 Line1:
 Line2:
 Line3:

 Alpha:
```

Each physical file folder label has three lines, matched in the FOLDERS database by the *Line1*, *Line2*, and *Line3* fields. The *Alpha* field contains a key word about the folder that indicates its location in the filing cabinets.

Because there might be a dozen or more records in FOLDERS for each Case Number, I started by creating a supplementary database to contain one record for each unique Case Number. I named the database FILES.DTF, and added these three fields to it:

```
Case No:

  Done1:
  Done2:
```

To fill FILES.DTF's Case No field, I created a FOLDERS.DTF report named *Unique Case # Output* with these specs:

```
Case No: 1, AS, I

Heading:
Formula: #1
Column/Sort Spec: 50,I

Heading: !
Formula: @Text((#1 <> #50), #1)
Column/Sort Spec: 2,HS(\ )

Print to Disk
```

These specs output only unique Case Numbers in alphabetical order, and suppress the column heading and separator line. The resulting disk file is then imported into FILES.DTF as a Standard ASCII file, using a *1* in the Case No field at the Merge Spec, and selecting no quotes and comma field delimiter at the ASCII Options screen.

Controlling the procedure

Now that FILES.DTF contains one record per unique Case Number, its programming can print to disk the 300 or so reports destined for the WordPerfect subdirectories. The three FILES.DTF fields contain the following programs:

Case No:

```
< If @Add Then {
  @Msgbox("This is supplementary database",
          "used to compile FILES reports.",
          "You cannot add records to it.");
  @Exit }
```

Done1:

```
< If Done1 = "" Then {
  Done1 = "Done"; @Macro("Run FILES Report") }
  Else If Done1 = "Done" Then {
  Done2 = @Shell("Move d:\qa\docs\FILES c:\wp51\files\"
                 + Case No );
  Goto Done2 }
```

Done2:

```
< @Macro("Next Record")
```

The FILES database is for use only by the macro-driven procedure. (The Case No field's program prevents anyone from manually adding records to it.)

The initial Alt-1 macro that launches the procedure runs the *Unique Case # Output* FOLDERS report I mentioned earlier, then imports the resulting ASCII file into FILES.DTF. It then opens FILES.DTF in Search/Update mode, "presses" F10 at the Retrieve Spec, and presses tab from the Case No field of the first record.

That's it for the Alt-1 macro. Now the program in FILES.DTF's Done1 field takes over.

Step 1 of Done1's program invokes the *Run FILES Report* macro. This macro "presses" Shift-Tab to move back to the Case No field, and copies the Case Number to the Clipboard. It then saves and exits the record, and runs the FOLDERS.DTF *Files List by Case # Rev2* report, pasting the Case Number into the report's Retrieve Spec. (Be sure the Case No field is Speedy.) The canned report is printed to a disk file named FILES.

The same macro then returns to FILES.DTF in Search/Update mode, pastes the same Case Number into the Retrieve Spec, pulls up the same record it left a moment ago, and presses Tab to move to the Done1 field.

Since Done1 now contains *Done*, part 2 of Done1's program executes. The @Shell command moves the FILES file (the disk report for the current Case Number) to the matching WordPerfect subdirectory, and the Goto command moves the cursor to the Done2 field.

Done2's program invokes the *Next Record* macro. This one deletes the current record (since it has served its purpose and is of no further use), displays the next record in Search/Update mode, and "presses" Tab from the Case No field to run the report for this *second* Case Number.

The looping routine continues in this manner until all 300 or so FILES.DTF records have been processed and deleted, and all the WordPerfect Case Number subdirectories contain updated FILES reports.

On a fast PC, all you see while the procedure is running is each DOS command echoed as it moves each FILES file from Q&A to the corresponding WordPerfect subdirectory:

```
D:\QA\DOCS\FILES => C:\WP51\FILES\CO3456\FILES [ok]
```

The entire procedure (300 new reports) takes just a few minutes. Here are the three macros that run it:

```
<begdef><alt1><name>"<caps,>alt1<caps.>"<vidoff>rp
<capsf4>d:\qa\data\folders<enter>unique<sp>case<sp>#<sp>
output<enter>n<enter>files.asc<enter>y<esc>fuis<capsf4>
d:\qa\docs\files.asc<enter><capsf4>d:\qa\data\files
<enter>1<f10><rgt><f10><esc><esc>fs<enter><f10><tab>
<enddef>
*
<begdef><nokey><name>"Run<sp>FILES<sp>Report"<vidoff>
<capstab><f11><capsf10><esc>rpfolders<enter>files<sp>
list<sp>by<sp>case<sp>#<sp>rev2<enter>y<f12><f10><f10>
<f10><enter>files<enter><esc>fsfiles<enter><f12><f10>
<tab><enddef>
*
<begdef><nokey><name>"Next<sp>Record"<vidoff><f3>ys
<enter><f10><tab><enddef>
```

The report

I thought it would lend a classy touch if the folder entries in the FILES reports looked like actual file folder labels. **Figure 2** shows one with a few dummy entries.

Here are the Specs for the *Files List by Case # Rev2* report shown in Figure 2. **Figure 3** shows the special derived column formula that produces the boxed column format:

```
Case No: 1,AS

 Line1: 3,I
 Line2: 4,I
 Line3: 5,I

 Alpha: 2,AS

Heading: 45:Folder Label
Formula: (See Figure 3)
Column/Sort Spec: 6
```

As you can see from Figure 3, the box is "drawn" with ASCII graphics characters. Moving clockwise from the top left, the box's corners are made with ASCII 218, 191, 217, and 192, respectively. The horizontal lines are made with ASCII 196, and the vertical lines with ASCII 179.

The derived column's width is fixed at 45 characters. Because the vertical lines use one space each, I subtracted the length of each column's value from 43, and padded the difference with spaces. (That's the *@Text(43-@Len(#3)," ")* for the column 3 text value.) The *@Text(30," ")* at the end of each line forces Q&A to break the line and continue on the next one.

The result is that as long as each line of text inside the box (Line1, Line2, and Line3—columns 3, 4, and 5—in this case) doesn't exceed 43 characters, they all fit nicely, and the label box retains its shape.

You don't have to be a law firm to reap the benefits of a folder-tracking system like this. If your company's activities center around documents and file folders, and people need fast access to up-to-date information on where things are, this technique can go a long way toward helping everyone be more productive. **QA**

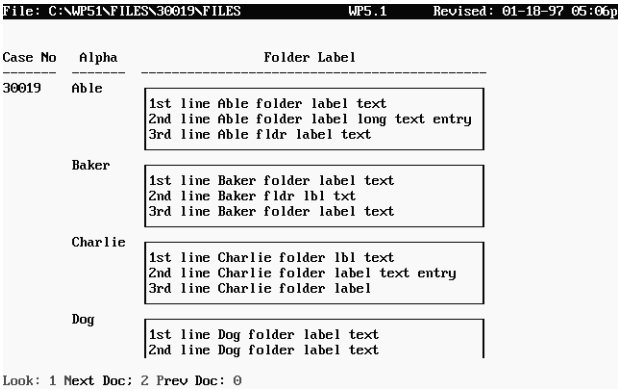
File: C:\WP51\FILES\30019\FILES WP5.1 Revised: 01-18-97 05:06p
Case No
Alpha
Folder Label
30019
Able
1st line Able folder label text
2nd line Able folder label long text entry
3rd line Able fldr label text
Baker
1st line Baker folder label text
2nd line Baker fldr lbl txt
3rd line Baker folder label text
Charlie
1st line Charlie folder lbl text
2nd line Charlie folder label text entry
3rd line Charlie folder label
Dog
1st line Dog folder label text
2nd line Dog folder label text
Look: 1 Next Doc; 2 Prev Doc: 0

Figure 2. This sample FILES report (Files List by Case # Rev2)—shown in WordPerfect DOS 5.1's Look screen—came straight from Q&A 5.0's Report module and the FOLDERS database. It isn't touched up.

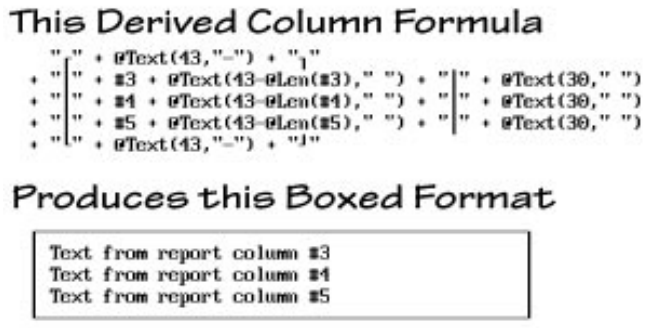
This Derived Column Formula
"┌" + @Text(43,"─") + "┐"
+ "│" + #3 + @Text(43-@Len(#3)," ") + "│" + @Text(30," ")
+ "│" + #4 + @Text(43-@Len(#4)," ") + "│" + @Text(30," ")
+ "│" + #5 + @Text(43-@Len(#5)," ") + "│" + @Text(30," ")
+ "└" + @Text(43,"─") + "┘"
Produces this Boxed Format
Text from report column #3
Text from report column #4
Text from report column #5

Figure 3. The formula for the derived column, and the resulting label-like output.

Tom Marcellus is editor of *The Quick Answer* and author of *PC World Q&A Bible* (IDG Books). His QuickClick Calendar Plus—a time- and activity-tracking database for Q&A 5.0—is available from Marble Publications, publisher of *The Quick Answer*.

Stumped?

Send Q&A questions to **@Help, *The Quick Answer*, Marble Publications, Inc., PO Box 9034, Gaithersburg, MD 20898-9034** or fax to **301-424-1658**. Please include your name, address, phone number, and your Q&A version number (and whether DOS or Windows) and a detailed description of the problem. We ll publish those questions we feel are of general reader interest; individual responses aren t possible.

The Quick Answer

Squeezing in Additional Help

JEFF NITKA

WHEN developing applications for others, I try to offer liberal dosages of @Msg, @Msgbox, and @Help screens to guide users through data entry. With Q&A 5.0, though, a problem arises when you want to display some help text at the same time you display a pop-up Userselect or XUserselect selection list. You can't use @Help or @Msgbox in conjunction with these lists, and @Msg—with its 80-character limit—might not be enough room to say what needs to be said. I solve the problem by adding a Help field to the database, using one of three options.

Option 1

I place a three-line, 43-or-so-character field named Help in the top left corner of the screen. This way, I can precede any field's program with a command to display the help text in the Help field. The following sample program shows how it works. In this case, a pop-up selection list offers three choices, and the Help field explains what they do:

```
Action:
< Help = "Choose from the following list.
Choose 1 to save and exit this record.
Choose 2 to save this record and continue.
Choose 3 to cancel this operation.";

Action = @Userselect("1 - Save & Exit,2 - Save &
Continue,3 - Quit");
Action = @Left(Action,1);
If Action = ""  then goto Action else
If Action = "1" then @Exit else
If Action = "2" then @Save else @Macro("Quit")
```

Option 2

Option 1's multiline field requires that you reserve three lines for the single Help field. A way around this is to place three labelless fields (Help1, Help2, and Help3) in the top left corner of the page, formatted like this in the Design Spec:

```
<                                        >
<                                        >
<                                        >
```

The advantage to this design is that you can place other fields to the right of the three Help fields, and you can center-justify each field's text to improve appearance. One drawback, though, is that you have to break up your help message like this:

```
Help1 = "Choose 1 to save and exit this record.";
Help2 = "Choose 2 to save this record and continue.";
Help3 = "Choose 3 to cancel this operation.";
```

Another drawback is that for every help message you want to display, you have to know the width of the fields so you don't include too much help text in them. (Too much text causes an arrow at the end of the field with the remaining text hidden).

Option 3

The third option addresses the inconvenience of Option 2, even though the three Help fields are designed the same way. Simply assign the entire help message to Help1, then perform a Gosub to another field to parse the message into the three Help fields. Here's a sample program that does the trick:

```
Action:
< Help1 = "Please choose from the following options.
If none of the options apply, press Escape. When done,
press F10."; Gosub Help2

Help2:
< Clear( Help2..Help3 );
  if   @Len(Help1) > @Width(Help1)
  then {
       Help2 = @Rt(Help1, @Len(Help1) - @Width(Help1));

       if    (@Mid(Help1,@Width(Help1),1) <> " ") and
             (@Mid(Help1,@Width(Help1)+1,1) <> " ")
       then  { Help1 = @Lt(Help1,@Width(Help1));
               Help1 = @Repllas(Help1," ","~");
               Help2 = @Rt(Help1, @Len(Help1) -
                       @In(Help1,"~")) + Help2;
               Help1 = @Lt( Help1, @In(Help1,"~") - 1 ) }
       else  Help1 = @Lt(Help1,@Width(Help1));
        if   @Len( Help2 ) > @Width(Help2)
       then {
              Help3 = @Rt(Help2, @Len(Help2) - @Width(Help2));
              if    (@Mid(Help2,@Width(Help2),1) <> " ") and
                    (@Mid(Help2,@Width(Help2)+1,1) <> " ")
              then  { Help2 = @Lt(Help2,@Width(Help2));
                      Help2 = @Repllas(Help2," ","~");
                      Help3 = @Rt(Help2, @Len(Help2) -
                              @In(Help2,"~")) + Help3;
                      Help2 = @Lt( Help2, @In(Help2,"~")-1)}
              else  Help2 = @Lt(Help2,@Width(Help2))
            }
         };
  Return
```

Using this technique, you can increase or decrease the width of each Help field (in the Design/Redesign Spec), and the program compensates. The results of Help1, Help2, and Help3 (each a 42- character field) look like this:

```
Please choose from the following options.
  If none of the options apply, press
     Escape. When done, press F10.
```

QA

Jeff Nitka works for a chemical manufacturer and develops Q&A applications part-time for Epoch Software, 908-874-3989. Jeff is the author of the Program Evaluator (a Q&A program debugging utility) and FaxMan (a Q&A faxing database), both of which are available from Marble Publications.

@Help

EDITED BY T.J. SHUFLIN

Graphic Images in Forms and Documents

I've downloaded some .GIF image files and would like to use them in my Q&A for Windows documents and forms. Can I? And if so, how do I do it?

Kevin M. Carman, Brockton, Massachusetts

I'll assume you want to insert a graphic image as part of a letterhead in Q&A Write document. You also asked about placing a graphic image on an input form, so I'll assume you want the image in the form design, not in a picture field in the database.

First, you'll have to get the image into Windows' Clipboard. You can do this by creating the image in a Windows program, or in your case, since you have the image, bring it into a Windows program, then copy it to the Clipboard. (A graphics program that supports the .GIF file format is your best bet.)

Next, open the Q&A for Windows database. Display the appropriate input form by clicking Design Input Forms on the Select menu. On the Edit menu, click Paste, and the image should appear on the Form. You can then click and drag the image or resize it. When you're done, resave the form.

To place the image in a database field, you'll first have to redesign the database to include a picture field. Once that's done, you can copy the image to the Clipboard as outlined earlier. Open the database, display the appropriate record in Add/Edit mode, select the picture field, then choose Paste from the Edit menu.

To insert a graphics image into a Q&A Write for Windows document, see pages 6-26 through 6-34 in the *Q&A for Windows User's Manual* for step-by-step instructions. You can Paste the graphic image on the page, or Insert it into a frame.

Problems Running Q&A for DOS Under Windows 95

My office staff uses Q&A 4.0 for DOS on a PC with Windows 95, and we've been having a few problems. First of all, because Q&A runs in a window, it's difficult to read and use. Also, we've lost data because users sometimes exit Q&A improperly by clicking on the Windows 95 "X" button in the upper right-hand corner of the window, then answering "Yes" at the warning screen. The other problem is that the screen saver turns on when Q&A is inactive for a couple of minutes. Then, when someone sits down to use Q&A and clicks on the Q&A icon on the desktop, a *!Single User Version!* error screen appears. What can I do to make it easier and safer to run Q&A under Windows 95?

Sherry McCloud, Lansing, Michigan

You can control the way Q&A for DOS runs under Windows 95. To make Q&A run in Full-screen mode—where it will look the same as when running in DOS—exit Q&A, right-click the Q&A shortcut icon on the desktop, and select *Properties* from the pop-up menu. The Properties dialog box contains several tabbed sections. Open the *Screen* tab first. In the Usage area, select the Full-screen check box to place a check mark in it, then click Apply.

Next, choose the *Misc* tab. In the Foreground section, clear the Allow Screen-Saver box by clicking on it. If you want to prevent users from switching Q&A into a window (where they can exit the program by clicking on the Windows 95 "X" button), clear the Alt-Enter check box in the Windows shortcut key section. Once again, click Apply. Finally, click OK at the bottom of the Properties dialog box to return to your Windows 95 desktop.

The *!Single User Version!* error message appears when someone tries to start another Q&A session with your single-user version of Q&A already active. After returning from the screen-saver to the desktop, Q&A is minimized on the Task Bar at the bottom of the screen but is still active. Turning off the screen-saver setting for Q&A should help reduce the possibility of users trying to start a second instance of Q&A.

Note that Q&A 5.0 has the ability to run multiple *copies* of a single-user version of Q&A via the External Programs menu or @Shell programming command. But this is an entirely different matter.

Using Text and Field Data with the @Askuser Command

I created a Q&A 5.0 database so my school can store information about student suspensions and unexcused absences. I've programmed it to maintain a running total of these values for each student. Now I'd like to program it with the @Askuser command to prompt for a decision regarding expulsion. I'd like the @Askuser box to show the student's name, the numbers from the Suspensions and Absences fields, and some fixed text, but I can't figure out how to do it.

Leslie Warner, Metairie, Louisiana

Here are some fields and programming that make the @Askuser command give you what you need:

```
Name: #1
Student ID: #5
Suspensions: #20
Absences: #30

<#35="Has "+ @Str(#20) + " Suspensions and "
     + @Str(#30) + " Unexcused Absences."
```

```
Expulsion Decision:
<#40: If @Askuser(#1, #35, "Do you wish to Expel?")
      Then #40=" Will be Expelled."
      Else #40=" Will not be Expelled."

Next Field: #50
```

Field #35 is a single-character, labelless, read-only field used to hold some of the information. This way, the @Askuser command in field #40 can combine field information with the fixed text, and produce an @Askuser box that prompts for an answer about whether the student should be expelled or not.

Use @Color to Attract Attention

I have a Q&A 5.0 database that contains, among other fields, a field for the current date, and several rows each containing a Target Date, Job Description, and Job Status field. I'd like to program the database so that when I return to a record to update any of its Job Status fields, any lines with incomplete jobs will stand out. I'd like to be warned when a Status field doesn't contain "C" and there are five or fewer days between the current date and the Target Date. How can I do this?

Ed Michelson, Atlanta, Georgia

With Q&A 5.0, one of the easiest ways to draw attention to a field is to use @Color to conditionally highlight it. You can create a program that will turn any Target Date field meeting your condition into bright white text on a red background. Place the program in the Today's Date field, and make it the on-record-entry field. This way, it'll execute as the record is displayed. The Today's Date is field #10, so press F8 at the Program Spec, and type *10* in the on-record entry field. The following sample program works for five rows of fields under columns headed Target Date, Job Description, and Job Status. The fields themselves have no labels, and are numbered as follows:

```
•   Target Date fields: #20, 22, 24, 26, and 28
•   Job Desc fields: #40, 42, 44, 46, and 48
•   Job Status fields: #60, 62, 64, 66, and 68

Today's Date:
 < #10: #10 = @Date; If @Add then Cnext;
 If (#20 <> "" and #20 - #10 <= 5 and #60 <> "C")
    then @Color(#20,15,4);
 If (#22 <> "" and #22 - #10 <= 5 and #62 <> "C")
    then @Color(#22,15,4);
 If (#24 <> "" and #24 - #10 <= 5 and #64 <> "C")
    then @Color(#24,15,4);
 If (#26 <> "" and #26 - #10 <= 5 and #66 <> "C")
    then @Color(#26,15,4);
 If (#28 <> "" and #28 - #10 <= 5 and #68 <> "C")
    then @Color(#28,15,4)
```

If you update a Target Date or Status field, you'll need to save the record then return to it so the program can recalculate and conditionally apply the colors. A quick press of F9 then F10 displays the previous record (assuming you aren't in the first of a group of retrieved records) then return you to the one you just updated.

Selection List Problem

I download names and addresses of residents in a geographical area, then import them into my Q&A 5.0 database. My database includes Street Address and Street Name fields, and I have a separate database that contains 10,000 or so street names. As I go through the newly imported records, I need to lookup some of the street names to be sure they're valid and correctly spelled. I've tried XLookup, but I have to type in the entire street name to find a match. I've also tried XUserselect, but it takes forever for the list to appear, and I get only the first 3,000 street names. Is there a way I can type a few letters of the street name, and get a list of the streets that start with those letters?

Brian Watson, Auckland, New Zealand

Yes. You need a program like this for your Street Name field:

```
> If Street Name <> "" Then
  XUserselectR("STREETS", "Street",
  "Street", Street Name, Street Name,
  Street Name)
```

Notice that this is the XUserselectR command, with an "R" (for *range*) on the end. The command uses the letters you type in the Street Name field as the starting and ending range parameters for the selection list. Accordingly, if you type in three letters and press Enter, a list appears that includes all the street names that begin with those three letters.

Here's a brief explanation of XUserselectR's six parameters, in the order they appear in the sample command:

1. Name of the external lookup database.
2. Name of the Speedy field in the external database.
3. Name of the field in the external database whose values you want to appear on the selection list. (In this case, it's the same as the previous parameter because it's the same field.)
4. Starting range (in this case, whatever you've typed in the Street Name field).
5. Ending range (in this case, also whatever you've typed in the Street Name field).
6. The field you want to receive the list item you select.

—Tom Marcellus

QA

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How to Create a Duplicate-Record Report

WILLIAM HALPERN

Before you purge those duplicate records, you might want to review them in a report to ensure you don't chuck the *wrong* dupes. Here's a derived column technique that gives you the information you're after.

I have a client who recently created a 2,500-record database of sales agents by importing records from various old databases and ASCII files. Although we expected some duplication of information, the problem was that the agents would be assigned identification codes (using simple @Numbers) to link them to sales. Thus, it wouldn't do to have John Smith, ID 123 credited with a sale, then have John Smith, ID 987 credited with the next one when they were the same person.

"No problem," you say. "Just run the Sales Report by name."

Oh, I forgot to mention that John Smith, ID 345 is a different person.

A different approach needed

Q&A is very capable when it comes finding and removing duplicate records. Your choices, though, are limited to one of the following:

- Simply find and remove the duplicate records.
- Find and remove the duplicate records to an ASCII file so you can review the deletions.

Both of these approaches have their drawbacks. In the first case, you can't predict which record(s) in a set of duplicates Q&A will remove. (Will Q&A nix the latest record in the set with the new phone number and address? Will it delete John Smith, ID 345—the unique John Smith)?

In the second case, you're left with an ASCII file. Though, you can use it to create another database to compare to the first one or to review the records before finally deleting those you really don't want, wouldn't it be wiser to run an initial report that shows all the duplicate records? **Figure 1** shows what such a report might look like.

At a glance, you can see you need to review 522 records (only a portion of them are shown in Figure 1), and you can do so by checking the person's first name and city. This is important because J. and Joseph Davis, and Mike and Michael Alexander might be the same person. Using the ID numbers as a reference, you can easily decide which records are really duplicates and which should be removed. You could include other fields in the report, perhaps to tell you which is the most recent record in each set of duplicates.

But how do you design such a report when Q&A has no retrieval functions that can find duplicate records?

The basic concept for the report I'll show you is to find a record where the last name is the same as the previous record. Then, because you know it's a match, you print the information from that previous record. In other words, Q&A prints the information from a record *after* it looks at the following record and qualifies it as a duplicate. In essence, you're having Q&A look at two records simultaneously!

But there's a fault in this logic: if the last record in the set is a duplicate, it won't print because there's no duplicate record following it. Fortunately, we can sidestep this problem by including a record in the database where the only field filled is the Last Name field—and it contains "ZZZ," so it'll always be the last record.

Creating the report

Start by designing a columnar report with a Retrieve Spec that includes all the records. Fill out the Column/Sort Spec like this:

```
Last Name    1,AS,I
First Name   2,AS,I
City         3,I
ID Number    4,I
```

Matching Last Name	First Name	City	Code
Adams	John	Washington	00131
Adams	Kenneth	Reston	00133
Adams	Stephen	Louisville	00132
Adams	Thomas	Camp Springs	00134
Alexander	Jeffrey	Washington	00147
Alexander	Mike	Camp Springs	00149
Alexander	Michael	Camp Springs	00148
Davis	A.K.	Richmond	00463
Davis	Archie	Richmond	00458
Davis	Brack	Lexington	00461
Davis	J.	Independence	00465
Davis	James	Newark	00467
Davis	Joseph	Independence	00456
Davis	Shane	Cedar Bluff	00468
Smith	Ben	St. Louis	01532
Smith	Dan	Hammond	01530
Smith	David	Westview	01531
Smith	George	Upper Marlboro	01536
Smith	Godfrey	Newport News	01529
Smith	Gordon	Millersville	01537
Smith	Harold	Alexandria	01538
Smith	John	Boulder	00123
Smith	John	Boulder	00987
Smith	John	Boston	00345
Smith	Lawrence	Baltimore	01528
Smith	Mayer	Fairfax	01539
Smith	Robert	U	01533
Zimmerman	Geo	Virginia Beach	01829
Zimmerman	George	Virginia Beach	01824

Count: 522

Figure 1. Portion of a sample duplicates report.

The Last Name and First Name fields are sorted alphabetically and made invisible so they control the sort order but don't appear in the report. A unique field such as ID Number must be included for this technique to work.

When you've filled out the Column/Sort Spec, press F8 for the Derived Columns screen, and create the following 10 derived columns:

```
Heading: Duplicate Last Name
Formula No. 1:  #1
Column/Sort Spec: 500,I

Heading: Name & Code
Formula No. 2: @Txt(#1=#500, #1+", "+#2+" - "+@Str(#4))
Column/Sort Spec: 25,I

Heading: Prior First Name
Formula No. 3:  #2
Column/Sort Spec: 490,I

Heading: Prior Code
Formula No. 4:  #4
Column/Sort Spec: 480,I

Heading: Matching Last Name
Formula No. 5:  @Txt(#25<>#470,#500)
Column/Sort Spec: 30,C

Heading: This NC Dupe
Formula No. 6:  #25
Column/Sort Spec: 470,I

Heading: Prior City
Formula No. 7:  #3
Column/Sort Spec: 460,I

Heading: City
Formula No. 8:  @Txt(#25<>#470,#460)
Column/Sort Spec: 33

Heading: Code
Formula No. 9:  @Txt(#25<>#470,@Str(#480))
Column/Sort Spec: 36

Heading: First Name
Formula No. 10: @Txt(#25<>#470,#490)
Column/Sort Spec: 31
```

When you've added all 10 derived columns, press F10, select your printer, and print the report.

How the derived columns work

Three techniques come into play in this report design. First, you have to sort the records by last name, which your Column/Sort Spec takes care of.

Second, you must have Q&A check to see if the current record has the same last name as the previous record. You accomplish this with a duplicate last name field (derived column 1) that Q&A doesn't evaluate until it processes the next record.

Third, you delay the printing. If the records match, then Q&A creates a column value consisting of the last name, first name, and ID number (derived column 2). The data you want to print from each subsequent record is prepared in derived columns 1 (Last Name), 3 (First Name), 4 (ID), and 7 (City). The delayed printing is controlled by checking that in a record where the last name is the same as the previous record, the combination value created in derived column 2 doesn't match the one in the last record (@Txt(#25<>#470).

Admittedly, the logic isn't for the timid. But the results are accurate and easy to work with when you can't afford to risk tossing out the *wrong* duplicate records. **QA**

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Quick Tip

Shelling to Windows 95 Programs

5.0

With Windows 95 and Q&A 5.0's External Programs and @Shell features, you can shell out to a Windows program from Q&A, do some work in the other program, then return to Q&A and the screen you were on. You might want to run a mail merge using MS Word for Windows, or transfer data to or from an Excel spreadsheet this way.

If you're running Q&A in full-screen mode, you'll find yourself on the Windows 95 desktop with Q&A minimized on the task bar when you exit the external program you launched from Q&A. You'll have to click on the Q&A button *on the task bar* to return to Q&A.

If you're launching a Windows program from a specific Q&A record, you might like to return to that record automatically when you exit the Windows program—avoiding the task bar and the additional mouse click. To do this, run Q&A in a window, not in full screen mode. You can toggle between full screen and window mode by pressing Alt-Enter. When you first toggle Q&A into a window, it might be in too small a window. To enlarge the window, click on the Maximize/Restore icon (the middle icon in the upper right-hand corner of the title bar). You can then select a larger font for your Q&A window by clicking on the font tool (the leftmost selection on the tool bar). The 10 x 18 and 10 x 20 fonts look similar enough to Q&A running full screen.

If you exit Q&A while it's running in a window, Windows 95 starts Q&A in the same window the next time. But you can always toggle between window and full screen mode at any time. **QA**

Gordon Meigs, PCTA, Newtown, PA

Updated or Outdated?

ALEC MULVEY

Using old information—particularly names and addresses—can mean wasted money and effort. Here are some tips and techniques you can use to keep tabs on how current your data is.

DATA without a time frame can be useless. Take a marketing database of prospective customers. If the names and addresses are more than a few years old, the entire file might be worthless. People will have moved, phone numbers and area codes will have changed, and the company might no longer be at the same address. If the information was captured during the last few months, though, then it's probably safe to assume it's still valid.

But how can you tell? Without an appropriate time-stamping mechanism in place, you can't.

Unlike word processing and other types of computer files, a database's date stamp is updated when you simply open the file and view a record. Thus, that old database you haven't looked at for a few years—the one with the DOS 1994 time-stamp—will be redated by DOS as soon as you search it, whether you modify anything or not. That's why I consider it essential to keep tabs on dates, and ensure database records are appropriately date-stamped. I'll show you how I do it.

Two essential fields

Every database that contains time-sensitive information—and *time-sensitive* is a relative term—should have a field that shows the date the record was added to the database, and another that shows the date it was *last modified*.

Stamping the record with the date it was added to the database is easy—all you have to do is type *@Date* in the appropriate date field at the Initial Value Spec (File / Design File / Customize File / Set Initial Values). (See the sidebar, "Initial Values when Upgrading.")

As for the date the record was last modified, you can use a simple program (File / Design File / Program a File / Program Form) like the following in the Last Modified field:

```
#300: If @Modified then #300 = @Date
```

This works well as long as the Calculation Mode is set to Automatic. QA 4.0 doesn't have the @Modified function, so you have to use the @Update function. This isn't as reliable as it will update the record when F8 (Manual Calc) is pressed, even if the record wasn't modified at all. One combination *not* to use is @Update with the field's program set to execute on-record-exit. In this case, the field would be updated every time you viewed the record.

Both of these date fields should be made read-only (File / Design File / Program a File / Read-only fields), so they can't be changed from the keyboard.

Taking it further

To have even more precise information, you can add Time Added and Time Modified fields to complement the Date Added and Last Modified field. If the database is used on a network, you can also include a field that shows *who* last modified the record.

It can be important to know precisely when a record was added or last modified. Examples are support desks, or companies that track response times on telephone requests. A field that stores time values needs to be formatted "H" for hours. You can use @Time as an Initial Value to time-stamp new records, and the @Time function (in a program) to return the time of day the record was last modified.

If users log into a Q&A database with a password, it's easy to capture their user IDs. For new records, you can't do it with an Initial Value, so you'll need some programming along these lines:

```
Record Added By:
#320: If @Add and #320 = "" Then #320 = @UserID

Last Modified By:
#340: If @Update and @Modified Then #340 = @UserID
```

The User field is a text field.

All the programming for the modified fields can be in a single field, like this:

```
#300: If @Update and @Modified Then
    { LastModDate = @Date ;
      LastModTime = @Time ;
      LastModUserID = @UserID }
```

With these various fields, Initial Values settings, and programs, you can not only determine when the database was first used and last used (in terms of adding and updating records), but also which records were added or modified during any period of time at which you care to look. This can be useful if, for example, you're a developer who needs to know if any data was changed between the time you made a copy of the database and returned with the amended version.

How old is the database?

But what about time-stamping the database as a whole? As I mentioned earlier, the DOS date stamp is no help because it

only tells you when someone last opened the file.

Beginning with Q&A 4.0, you can attach a file description to any Q&A database or Write document. After you create the database, you can go to a Q&A List Files screen, highlight the file, press F6, and enter a description of up to 72 characters. You can include the date and even the time the database was first used, knowing these won't change no matter what is subsequently done with the database. Be aware, though, that because the file description is stored in the .DTF file, adding one will itself update the file's date stamp.

If you're running the Q&A Network Pack on your PC, you'll receive the error message, *File is in use—cannot read or write description*, if you try to add a description to the database you've just worked with. To release the file lock, open then close another database, or press Shift-F6 at the Main menu to clear the User ID and password.

Yet another way to permanently record the date a database goes on active duty is to "print" it on the database form itself. Developers often do this by including the database's version number, the date it was created and, of course, their name and contact information. This doesn't require a field—you simply add it to the form as background text. **QA**

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Initial Values When Upgrading

If you're upgrading from Q&A 4.0 to 5.0, it's best to remove any @Date and @Time Initial Values *before* converting the database to Q&A 5.0. There's a bug in Q&A 5.0 that can make a converted database that includes these Initial Values misbehave if it's subsequently run under Windows. You can reinstate the Initial Values once you've converted the database to Q&A 5.0.

Quick Tip

Custom Picklist Sorting

DOS

Picklists, whether Q&A 4.0-style Restrict Spec lists, or Q&A 5.0 Userselect lists, are sorted alphabetically by Q&A. But what if you want one or more items to appear at the beginning or end of the list? With a Q&A 5.0 Userselect list, you can type a space in front of any selection(s) you want to appear at the top of the list. In a restricted values list, Q&A ignores such spaces, but you can precede the entry with a character that sorts before or after the usual alphabetic characters. The Table of ASCII Characters in the *Q&A User Guide* appendix is actually a sorting table. For example, you can precede a value with a hyphen to place it at the top of the list, or ASCII character 250 (a small dot) to force it to the bottom of the list. (You type the character by holding down the Alt key and typing 250 on the numeric keypad.) For example, a list where you want Blue and White at the top, and Orange and Purple at the bottom, would look like this:

```
-Blue
-White
Black
Green
Red
Yellow
•Orange
•Purple
```

You can strip the special characters from the resulting selection using a suitable on-field-exit program.

If you need to custom sort all the items on your selection list, you'll need another approach. Suppose you want a series of sizes (small, medium, large, and so forth) to appear on the list in ascending size order, like this:

```
1 X Small
2 Small
3 Medium
4 Large
5 X Large
```

In this case, you precede each item with a number (or letter).

Once you've made your selection, you can have your program strip out the selection number, or—to process the selections as numeric values—leave the number and strip out the description following it. To leave just the item description, you can use an on-field-exit program like this:

```
> #50: If @Instr( "1234567890", @Left( #50, 1 ) )
       Then #50 = @Mid( #50, 3, 99 )
```

If there are more than nine items on the list, you can use two-digit prefixes, such as 01, 02, and so forth, to display a custom sorted list of up to 99 items. **QA**

Alec Mulvey, Keyword Training and Consultancy, Ascot, England

Quick Tip — Build a Text String a Step at a Time

Suppose you have a field in your database to store a structured statement like this:

Miss Jones does not wish to receive
an American Express card

You want to control what goes into the statement to ensure it's accurate as to spelling and grammar, and you want to assemble it with minimum keystrokes. The solution is to use a series of Q&A 5.0's @Userselect or @XUserselect commands so you can select the various components in logical succession. To see how the technique works, create a little database with fields for First Name (#10), Last Name (#20), and a custom text field (#30). Suppose you're telemarketing credit cards, and you want to complete the form with the person's name and a complete sentence in the custom text field, like this:

Dr. Smith does wish to receive a VISA card

Miss Jones does not wish to receive
an American Express card

In the Program Spec, number the fields as indicated earlier, and place the following program in the custom text field:

```
<#30: If @Add then { #30 = @Us("Dr.;Mr.;Mrs.;Miss")
      + " " + #20 + " " + @Us("does;does not")
      +" wish to receive "
      + @Us("a VISA;a MasterCard;a Discover;
      an American Express") +" card" }
```

When adding a record, three pop-up selection lists appear, in turn, when you reach the custom text field. The first is for the title, then "does wish" or "does not wish," followed by the list of credit cards. You have three fast and easy selections and you're done—no typing required.

Here are two variations for special circumstances:

- You can use *@Us(@Insert("variable.txt"))* if the selection list is frequently updated, lengthy, or is used in several databases. This way, you can edit the list as a Write text file and avoid having to reprogram the database.

- You can create a database containing a record for each selection, and use a command such as *@XUs("phrases.dtf","phrase")* to display the list. You'll need to restrict such a list to less than 1,000 entries because of memory constraints, and displaying it in a network environment is likely to be sluggish. The previous option is faster, even when the text file is large.

Gordon Meigs, PCTA, Newtown, PA

Quick Tip — Sorting Large Databases

Q&A can't sort a database of more than about 110,000 records, *unless the field you're sorting on is Speedy*. This isn't just a Q&A 5.0 limitation. It's mentioned in the Q&A 4.0 READ.ME file, though the maximum number of sortable records is incorrectly stated there as 150,000. I recently sorted (on a non-Speedy field) a 127,000-record database in Q&A 4.0 and 5.0. Both versions quit sorting at about 110,401 records.

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